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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,907	06/24/2003	Venkatasubramanian Ananthanarayanan	DP-307603(CIP1)	2162

7590

12/06/2004

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EXAMINER

STONER, KILEY SHAWN

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/602,907	ANANTHANARAYANAN ET AL.	
	Examiner	Art Unit	
	Kiley Stoner	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9, 10 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 15-18 and 20 is/are rejected.
- 7) ☒ Claim(s) 6 and 14 is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/12/03, 2/19/04, 3/8/04, 5/10/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Species II in the reply filed on 11-16-04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4, 7-8, 15-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Leech (4,480,166) of the IDS. Leech teaches a method for joining a first tube to a member comprising the steps of: a) obtaining a first tube having a flange; b) obtaining a member; c) after steps a) and b), disposing the first tube and the member with the flange contacting the member either directly or indirectly through an intervening joining material; and d) after step c), locally heating the first tube and/or the member proximate the contact of the flange and the member without substantially heating the first tube and/or the member apart from proximate the contact of the flange and the

member (abstract; Figures). Resistance welding is a form of local heating. The focused arc generates heat.

Leech also teaches the flange is an annular outwardly-extending end flange disposed proximate an end of the first tube (Figures); the end flange is a folded end flange (Figures); the second member is a non-tubular member (Figures); the second member is a non-tubular member having a through hole, and wherein step c) coaxially aligns the first tube with the through hole of the non-tubular member with the flange of the first tube contacting the non-tubular member either directly or indirectly through an intervening joining material (Figures); wherein step d) includes creating a resistance welding current path through the first tube and the member proximate the contact of the flange and the member without substantially heating the first tube and/or the member apart from proximate the contact of the flange and the member creating a weld zone which includes at least some of the flange and at least some of the member (Figures); the flange is a folded flange having spaced-apart first and second fold portions, and also including, during step d), the step of applying a force to relatively move the folded flange deformingly against the member (Figures); before step c), the step of disposing a brazing joining material on the flange and/or the member at the contact of the flange and the member, and wherein step d) includes creating a resistance brazing current path through the first tube and the member proximate the contact of the flange and the member without substantially heating the first tube and/or the member apart from proximate the contact of the flange and the member creating a braze zone which includes at least some of the flange and at least some of the member (abstract and

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Figures); the flange is a folded flange having spaced-apart first and second fold portions, and also including, during step d), the step of applying a force to relatively move the folded flange deformingly against the member (Figures); a) obtaining a first tube having a flange; b) obtaining a member; c) after steps a) and b), disposing the first tube and the member with the flange contacting the member either directly or indirectly through an intervening joining material; and d) after step c), welding/brazing the first tube and/or the member proximate the contact of the flange and the member without substantially heating the first tube and/or the member apart from proximate the contact of the flange and the member (abstract and Figures). Because resistance welding is a local heating process it is inherent that bonding will be completed without substantially heating the first tube and/or the member apart from proximate the contact of the flange and the member.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leech (4,480,166). Leech teaches that the member is a case (Figures 1-2 and column 3, lines 48-58), however, in Figures 1-2 the case has a hole in it. This hole makes the case

shaped like a pipe. So, it would have been obvious to use the method of Leech for weld/brazing a tube to a tube in order to form a desired assembly.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leech (4,480,166) of the IDS as applied to claim 1, further in view of Fanucchi et al. (5,786,548) of the IDS. Leech teaches all of the limitations of the claims except that the end flange is a non-folded end flange. Fanucchi et al. teaches resistance welding a non-folded flange (column 4, lines 52-65). At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the resistance welding method of Fanucchi et al. with the resistance welding method of in order to form a desired hermetic assembly without using a folded flange.

Allowable Subject Matter

Claim 6 and 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art of record that is cited as of interest is presented on the form-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiley Stoner whose telephone number is (571) 272-

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1183. The examiner can normally be reached on Monday-Thursday (7:30 a.m. to 6:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on Monday-Friday at (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KILEY S. STONER
PRIMARY EXAMINER

Kiley Stoner 12/2/04